REMARKS

These remarks are in reply to the Office Action mailed October 20, 2005.

Claims 1-77 stand rejected under 35 U.S.C. 102(e). In addition, claims 14, 33-44, and 61-77 stand rejected under 35 U.S.C 112. Claims 14, 25, 31, 33, 37, 41, 43, 48, 56, 61, 65, 71, and 73 have been amended. Applicant respectively traverses the rejections.

Claim Rejections - 35 U.S.C. 112

Claims 14, 33-44, and 61-77 stand rejected under 35 U.S.C 112 under the second paragraph of 35 U.S.C 112 as being indefinite. Claims 14, 33, 41, 61, and 71 have been amended.

Claim Rejections - 35 U.S.C. 102(e)

Claims 1-77 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. Pub. to Li[1] ("Li"). Applicant respectfully disagrees as the Li reference fails to disclose or teach each and every element of the independent claims 1, 11, 22, 33, 45, and 61.

Claim 1 comprises: "up-scaling the fetched overlay image data." In support of the rejection, it is asserted that Li discloses up-scaling "at figure 2a with adding plural tiles in the border." Li discloses small graphic files and teaches copying these graphic files repeatedly around the border of an image. The reference says:

> "instead of storing an entire border, a border can be added to an
> input image 202 by 'tiling' the border area 204 of the image using
> one or more graphic 'pieces.'"[2]

"Tiling" and "scaling" are not synonymous. Scale means to "enlarge or reduce a graphic display . . . by adjusting its size *proportionately*."[3] In contrast, tile means:

> "to fill the space on a monitor or within a smaller area with
> multiple copies of the same graphic image."[4]

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[1] U.S. Pat. Pub. No. 2004/0119726
[2] Li, paragraph [0027].
[3] Microsoft Computer Dictionary, 5th ed., 2002, p.464 (emphasis added).
[4] Id., p.520.

Figure 4 of the present application provides an example of up-scaling, which illustrates that the size of each element of image data is adjusted proportionately. Li does not disclose proportionately adjusting the dimensions of a tile or any portion thereof. Accordingly, Li fails to disclose up-scaling fetched overlay image data.

Further, claim 1 of the present application comprises: "storing the overlay image data in a memory." In contrast, Li states that the amount of memory required to store a border is problematic,[5] that instead of storing an entire border, a small graphic image file is stored, and that "memory storage requirements are thereby reduced from what would be required to store an entire border."[6] Therefore, Li fails to disclose storing the overlay image data in its entirety.

Independent claims 22 and 45 each comprise a "scaling circuit for up-scaling the fetched overlay image data." Claims 22 and 45 are rejected "under rationale similar to that presented for claim 1." For the reasons presented above with respect to claim 1, Applicant disagrees as Li fails to disclose up-scaling of fetched overlay image data and storing the overlay image data in its entirety.

Independent claim 11 does not include "up-scaling the fetched overlay image data." Similarly, neither independent claim 33 or 64 include a "scaling circuit." Nevertheless, claims 11, 33, and 64 are rejected "under rationale similar to that presented for claim 1." As the rationale presented for claim 1 refers to a feature that is not included in claims 11, 33, and 64, this rationale does not support the rejection.

Claims 2 and 13 comprise "down-scaling the overlay image data prior to said step of storing." Claims 2 and 13 are rejected on the basis that Li teaches down-scaling in item 24 of Figure 3b. Applicant respectfully disagrees. Li discloses that "lossless compression is performed at step 24 so as to reduce the file size of the file of palette entries."[7] Li explains that "data compression techniques are well-known to those of skill in the art,"[8] adding that lossless compression may be, for example, "pack-bits." Applicant understands that "pack-bits" refers to one type of run-length encoding compression scheme. Lossless compression and down-scaling, however, are not

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[5] Li, paragraph [0002].
[6] Li, paragraph [0027].
[7] Li, paragraph [0075].
[8] Li, paragraph [0031].

equivalent. For one thing, down-scaling is "lossy," not "lossless." To illustrate, consider a 2 x 2 matrix of pixels, such as $C(1-2, 1-2)_{64}$ shown in Figure 4 of the present application. Assume each pixel has a unique value: for example, red, green, blue, and black. Now assume that the four pixels are down-scaled by averaging their respective values to produce a single pixel $C(1, 1)_{16}$. The color of the down-scaled pixel will be black. The single pixel $C(1, 1)_{16}$, by reason of the down-scaling process, loses some of the color information contained in the original image. In contrast, the use of a lossless compression technique, such as pack-bits, would not result in the loss of any color information. One skilled in the art would not consider run-length encoding and other lossless data compression techniques to be the equivalent of down-scaling. Accordingly, Li fails to disclose down-scaling.

Claims 3, 14, 23, 29, 35, 41, 46, 54, 63, and 71 stand rejected. Claims 3 and 14 further define a step of combining included in respective independent claims 1 and 11. Claims 23 and 29 further define a combining circuit included in independent claim 22. Claims 35 and 41 further define a combining circuit included in independent claim 33. Claims 46 and 54 further define a combining circuit included in independent claim 45. Claims 63 and 71 further define a combining circuit included in independent claim 61. As described above, Li fails to disclose each and every element of the independent claims 1, 11, 22, 33, 45, and 61. Accordingly, Li fails to disclose each and every element of the dependent claims 3, 14, 23, 29, 35, 41, 46, 54, 63, and 71.

Claims 4, 6, 15, 17, 24, 26, 30, 32, 36, 38, 42, 44, 47, 49, 55, 57, 64, 66, 72, and 74 stand rejected. Claims 4 and 6 include a step of resizing the main image data prior to a step of combining included in independent claim 1. Claims 15 and 17 include a step of resizing the main image data prior to a step of combining included in independent claim 11. Claims 24, 26, 30, and 32 include a resizer for resizing the main image data provided to a combining circuit included in independent claim 22. Claims 36, 38, 42, and 44 include a resizer for resizing the main image data provided to a combining circuit included in independent claim 33. Claims 47, 49, 55, and 57 include a resizer for resizing the main image data provided to a combining circuit included in independent claim 45. Claims 64, 66, 72, and 74 include a resizer for resizing the main image data provided to a combining circuit included in independent claim 61. As described above, Li fails to

disclose each and every element of the independent claims 1, 11, 22, 33, 45, and 61. Accordingly, Li fails to disclose each and every element of dependent claims 3, 14, 23, 29, 35, 41, 46, 54, 63, and 71.

Claims 5, 16, 25, 31, 37, 43, 48, 56, 65, and 73 stand rejected. Claims 5 and 16 include a step of converting the main image data from one color format to another color format. Claims 25, 31, 37, 43, 48, 56, 65, and 73 include a color format converter for converting the main image data from one color format to another color format. According to the Office Action, Li teaches converting the main image data from one color format to another color format in the abstract. However, the abstract does not teach or suggest color format conversion. As one of ordinary skill in the art will appreciate, the term "color format" refers to a color model, which is a mathematical model for describing a gamut of colors. Color models are used to define pixels. Examples of color models referred to in the present application include the RGB (red-green-blue) model and the YUV model in which each pixel is defined by a brightness component (Y), and two color components (U, V). Li mentions specifying the color of a pixel in the RGB model, but makes no mention of converting from the RGB color model to any other color model.[9] Accordingly, Li fails to disclose each and every element of claims 5, 16, 25, 31, 37, 43, 48, 56, 65, and 73.

Claims 7, 9, 15, 18, 20, 27, 28, 39, 40, 50, 52, 67, and 69 stand rejected. Claims 7 and 9 include a step of transmitting the composite main image data to a display device, the composite main image data being formed in independent claim 1. Claims 18 and 20 include a step of transmitting the composite main image data to a display device, the composite main image data being formed in independent claim 11. Claims 27 and 28 include a display interface for transmitting composite image data to a display device, the composite image data being formed by a combining circuit included in independent claim 22. Claims 39 and 40 include a display interface for transmitting composite image data to a display device, the composite image data being formed by a combining circuit included in independent claim 33. Claims 50 and 52 include a display interface for transmitting composite image data to a display device, the composite image data being formed by a combining circuit included in independent claim 45. Claims 67 and 69

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[9] See for example, Li, paragraphs [0024] and [0044].

include a display interface for transmitting composite image data to a display device, the composite image data being formed by a combining circuit included in independent claim 61. As described above, Li fails to disclose each and every element of the independent claims 1, 11, 22, 33, 45, and 61 do not disclose each and every element of these claims. Accordingly, Li fails to disclose each and every element of dependent claims 7, 9, 15, 18, 20, 27, 28, 39, 40, 50, 52, 67, and 69.

Claims 8, 9, 19, 21, 51, 53, 68, and 70 stand rejected. Claims 8, 9, 19 and 21 include a step of transmitting the composite image data to *a memory in a display device.* Claims 51, 53, 68, and 70 comprise *a display device that that includes a memory* for storing composite image data. In support of these rejections, the Office Action refers to paragraph [0017] of Li where it is said that: "by storing the input image with the added border in a file and then transferring the file appropriately, the image with the border can be . . . displayed on a monitor." But paragraph [0017] only describes a read-only memory 102-6 within a standalone printer 102. Li fails to disclose a display device that includes a memory.

Therefore, the Li publication does not teach each and every element of the claims 1, 11, 22, 33, 45, and 61. Accordingly, Li does not teach each and every element of the claims that depend from the independent claims. Moreover, certain of the dependent claims include features, as described above, that are not taught or suggested by the Li reference.

Conclusion

Therefore, claims 1-77 are in condition for allowance. Applicant respectively requests that claims 1-77 be allowed, and this application be passed to issue.

Respectfully submitted,

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